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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,002	07/03/2003	Shih-En Chen	4459-0144P	3384
2292	7590	03/01/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			BOUTSIKARIS, LEONIDAS	
			ART UNIT	PAPER NUMBER
			2872	
DATE MAILED: 03/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,002

Applicant(s)

CHEN ET AL.

Examiner

Leo Boutsikaris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Edlinger (US 6,024,453).

Regarding claim 1, Edlinger discloses a color wheel (Fig. 2a) comprising:

a color filter 12;

a motor having a housing 11 and a motor body 23, the housing being set to a side of central axis of the motor body, and the color filter being set on the housing of the motor; and

a fixing element 24 on which the motor body is fixed, and the fixing element having an outwardly extending holder 3 (lines 35-51, col. 4, and 8-43, col. 5).

Regarding claims 3-4, the fixing element 24 is a fixing plate, which is jointed with the holder 3.

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Regarding claim 5, the color wheel further comprises a cap set on the color filter (lines 9-11, col. 5).

Claims 6-9, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Acker (4,527,186).

Regarding claim 6, Acker discloses a color wheel (Fig. 1) comprising:

a color filter 18;

a motor having a housing 20 and a motor body 21, the housing being set to a side of central axis of the motor body, and the color filter being set on the housing of the motor;

a fixing element 35 on which the motor body is fixed; and an auxiliary fixing element 36 set on the fixing element 35 and having an outwardly extending holder 27 (lines 36-58, col. 7, and 3-22, col. 8).

Regarding claims 7-9, the auxiliary fixing element 36 is jointed with the holder 35 and it is integral with it (line 20, col. 8).

Regarding claim 15, the color wheel further comprises a cap, which is set on the filter (see cap encircling 20 on the exterior side of the color filter 18 (Fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edlinger (US 6,024,453).

Edlinger discloses all the limitations of the above claim except for teaching that the fixing element 24 and the holder 3 are integrally formed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make fixing element integral with the holder, since it has been held that making in one piece an article which has formerly been formed in multiple pieces involves only routine skill in the art, *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). One would have been motivated to form an integral fixing element/holder for easier manufacturing as well as better accuracy in aligning the holder 3 supporting a sensor with the oppositely positioned position marker 16.

Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker (US 4,527,186).

Acker discloses all the limitations of the above claims except for teaching the specific material used for the joining of the fixing element with the auxiliary fixing element i.e., adhering material, solder bonding material, screws or rivets or a combination thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to join the above two elements together using one of the claimed materials, since it has been held to be within the ordinary skill of worker in the art to select a known material in the basis of its suitability for the intended use, *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). One would use one of the above materials based on required strength of the bonding, i.e., based

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on the specific size/weight of the motor body. For example, a lighter motor would only require adhesive bonding, whereas a heavier one would require a screws/rivets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo Boutsikaris, Ph.D.
Patent Examiner, AU 2872
February 16, 2004

